

## ARTICLE

Self-harm in adolescents<sup>†</sup>

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<sup>†</sup>For a commentary on this article, see pp. 442–443, this issue.

**SUMMARY**

Self-harm in adolescents is common and is increasing. It can present to professionals as a symptom of major mental health disturbance or it can form part of a cultural 'norm'. This article reviews current knowledge about self-harm in 12- to 18-year-olds. Definitions of self-harming behaviour, epidemiological and aetiological factors, risk assessment and management of self-harming in various settings are discussed in terms of pragmatic clinical approaches and evidence-based practice.

**DECLARATION OF INTEREST**

None.

The National Institute for Health and Clinical Excellence (NICE) guidelines on the management and prevention of self-harm define self-harming behaviour as:

An expression of personal distress usually made in private by an individual who hurts him/herself. The nature and meaning of self-harm may vary greatly from person to person. The reasons a person harms him/herself may be different on each occasion and should not be presumed to be the same. (National Collaborating Centre for Mental Health 2004)

Self-harm can be divided into two broad types: self-injury and self-poisoning. The definition of self-harm is therefore purely behavioural and includes a spectrum of risk-taking behaviours (Box 1). Note that this spectrum includes smoking, tattooing, recreational alcohol and drug misuse, food restriction and promiscuity. Motivation must be appraised separately. Suicidal intent is associated with self-harming behaviour, particularly with self-poisoning, but the behaviour *per se* does not predict underlying intent. Suicidal intent must be assessed specifically (see Risk assessment).

**BOX 1 Types of self-harm**

- Self-injury: cutting, swallowing objects, insertion of objects into body, burning, hanging, stabbing, shooting, jumping from heights or in front of vehicles
- Self-poisoning: overdosing with medicines, swallowing poisonous substances
- Other risk-taking behaviours: smoking, recreational drug/substance misuse, over-eating, food restriction, promiscuity

This article focuses on self-harming behaviours in 12- to 18-year-olds presenting to professionals working in child and adolescent mental health services (CAMHS), from single acts of self-harm posing little medical risk to multiple acts posing serious risk to life. Young people who self-harm form a highly heterogeneous population.

Self-harming behaviour has been the focus of scrutiny from public health, service provision, professional/therapeutic and user/carer perspectives over the past 5–10 years. Awareness of self-harm has increased; however, little progress has been made regarding its evidence-based management by professionals (Hawton 2000).

**Epidemiology**

Self-harming behaviour in the 12- to 18-year-old age group is of public concern. The majority of self-harming behaviours do not reach professional attention. Most information about self-harm as a medical phenomenon and as a symptom of mental illness is derived from clinical populations, and it is important to question how far this can generalise to the general population. For example, Hawton et al (1996) found that almost 70% of young people admitted to hospital following episodes of self-harm (mainly self-poisoning) described previous acts of self-harm which had not been reported. Subsequently, Hawton & Rodham (2006a) describe their questionnaire survey of 6020 year-11 pupils in the Oxford area in *By Their Own Young Hand*. This in-depth study reported that 13.2% of the young people questioned had tried to harm themselves at some point in their lives; 6.9% in the previous year. A total of 15% of adolescents in this survey reported thoughts of suicide and 54% of those reporting self-harm described more than one episode/incident. Presentation to hospital was described by only 12.6% ( $n=50$ ) of adolescents who had engaged in self-harm. The largest proportion of acts of self-harm, possibly amounting to 80–90%, is invisible to professionals.

Meltzer et al (2001) conducted an interview-based study of over 4000 young people aged between 5 and 15 years in Great Britain. The authors found rates of self-harm of 1.3% for 5- to 10-year-olds and 5.8% for 11- to 15-year-olds. Parents were largely unaware of these acts; self-harm was associated with presence of mental health disorders and psychosocial disadvantage.

## Gender

Self-harming behaviour is more common in girls by a factor of around 2–4 and this is found consistently among international samples (Evans 2005). This may be related to the higher rates of depression in girls, greater tendency for boys to externalise and a possible underreporting in boys.

## Age

Age cut-offs vary for different studies. In adolescents, there is a peak in suicidal thinking and behaviour between the ages of 14 and 18 years. In England, presentations for both genders are rare under the age of 12 but increase steadily until 16 and remain at this level until the late teens (Hawton 2003).

## Ethnicity and international differences

Data in this area are difficult to interpret owing to classifications of ethnicity, sampling and variations in reporting. Self-harm is reported in most minority ethnic groups and may be more prevalent in all minority groups, suggesting that the social experience of being part of a minority group may be more important than being of a particular ethnicity (for a comprehensive review see Roberts 1997). The CASE study (Madge 2008) is a seven-country comparative community study of over 30 000 15- and 16-year-olds. In four of the seven countries, at least one in ten females had harmed themselves in the past year. Rates were highest in Australia, England, Belgium and Norway, and lowest in The Netherlands. There are suggestions (the trends did not reach significance) that the prevalence of suicidal phenomena is higher in the USA, Canada and Australia than in Europe and Asia.

## Summary

In community surveys around 10% of adolescents report self-harming behaviour. It is estimated that about 25 000 adolescents present to hospitals following self-harm each year in England and Wales. These rates are among the highest in Europe. Although self-harm is commonly reported in community surveys, young people presenting to hospitals represent less than 10% of the adolescent population who self-harm. As self-harm is common among adolescents, it is important to gain an understanding of the relationship between self-harming behaviour and completed suicide.

## Risk factors for adolescent suicidal behaviour

Although self-harming behaviours are very common, their significance as a risk factor for completed

suicide needs examination. A recent inquiry into self-harm in England (Mental Health Foundation 2006) examined self-harm from the perspective of young people and their carers. The vast majority of young people who self-harm see it as a means of coping with difficult feelings and circumstances, and regard it as a 'private experience'. The role of professionals is to alleviate suffering where this is indicated, and to assess and manage risk in situations where self-harm poses threats to life via suicidal urges and intent or significant risk to physical health due to the consequences of the behaviour. The remainder of this article focus on the young people who present to services.

The psychological autopsy is an accepted method of investigating mental and psychosocial characteristics of suicides. Research using this approach with adolescents has revealed the following risk factors for completed suicide (Shaffer 1996):

- presence of a psychiatric disorder
- previous suicide attempt
- presence of substance/alcohol misuse.

Suicidal behaviour can usually be seen as arising from a complex set of interacting vulnerabilities and situations, with a 'final straw' experience triggering the actual attempt. Various models have been proposed of the factors that need to be considered. Sutton (1998), for example, used the idea of the four 'Ms': means, motivation, moment(s) of madness. For further reading, I recommend Bridge et al's (2006) very comprehensive review of suicide and suicidal behaviour.

## Risk assessment

The purpose of risk assessment is to identify those at significant risk of suicide and enable risk-management strategies, including treatment interventions, to be put in place. Risk assessment should take place as soon as possible after an incident, when the young person is medically fit and parents/carers are available; the interview should include an assessment of the young person on their own and history from parents/carers. Key areas of enquiry are shown in Box 2.

The NICE guidelines (National Collaborating Centre for Mental Health 2004) include a separate section for 8- to 16-year-olds. Recommendations include admission for assessment of all young people presenting to hospital following an overdose; risk assessment is often conducted on a medical/paediatric ward or in an accident and emergency (A&E) department. If risk of further self-harm is identified, therapy or outreach is recommended for at least 3 months. The Royal College of Psychiatrists (2006) reviewed services for people who self-harm and produced a manual

## BOX 2 Risk assessment

- **The attempt:** detailed description, suicide ideation, lethality, intent/motivation and current intent. Previous suicidal behaviours and triggers.
- **Presence of mental health disorder:** assess for depression, conduct disorder, eating disorder, anxiety, post-traumatic stress disorder and psychosis. Ask about substance and alcohol misuse. Previous history of mental disorders/treatment. Psychiatric disorder is very common in adult suicides, but 40% of suicide completers under the age of 16 do not appear to have had a diagnosable psychiatric disorder. For these young people, intent was low and lethality of means high (Brent 1999). The idea of 'accidental adolescent experimentation' has been used to depict a 'prank' gone disastrously wrong.
- **Family–environmental factors:** parental psychopathology, family history of suicidal behaviour, family dislocation, experience of loss, family discord, and physical, emotional and sexual abuse.
- **Social/educational:** not attending education, disaffection, learning difficulties, social isolation, bullying, and social-related difficulties. Marginalisation and 'not fitting in' are important in adolescents, for whom being accepted by a peer group is crucial to healthy development.
- **Previous experience of treatment:** motivation to change, engagement, assessment of ability to take responsibility for own safety, availability of carers, wider support in accessing treatment.

of standards of good practice for A&E staff, ambulance services, mental health teams and primary care practitioners. In addition, the Royal College of Paediatrics and Child Health's review (2003) highlights the need for discrete services for adolescents, confidentiality, privacy, expertise and continuity of care. Child and adolescent mental health services, commissioned by primary care trusts and provided by other specialist health providers, are responsible for providing care for young people up until their 18th birthday (CAMHS Review Expert Group 2008: p. 15). The Mental Health Act amendments of 2007 place a duty on mental health trusts to provide age-appropriate accommodation for people under 18 who require hospital admission.

A number of screening instruments have been developed for the identification of at-risk adolescents. These have been comprehensively reviewed by Fox & Hawton (2004). Prospective studies are

needed to investigate the predictive validity of assessment instruments, the majority of which have been developed in the USA. These instruments may be useful in assessment; however, they do not replace clinical interview (Box 3).

In summary, when assessing risk it is important to engage the young person, family and professionals involved in a shared formulation/understanding of the recent self-harm and how to manage risk in the future. Where there is ongoing risk and/or presence of a mental health disorder, coordination and monitoring of care by a named professional is indicated.

## General management

Hawton et al (1982) classified adolescents who took overdoses into three groups:

- group 1, acute: problems identified had persisted less than 1 month, no behavioural disturbance
- group 2, chronic: problems identified at the time of the overdose had persisted for 1 month or more; no behavioural disturbance
- group 3, chronic with behavioural disturbance: problems identified at the time of the overdose had persisted for more than 1 month; recent behavioural disturbance (e.g. truanting, stealing, drug-taking, heavy drinking, fighting, in trouble with the police).

The Hawton system was evaluated in a case-note study of 50 adolescents (47 of them girls) consecutively referred for psychiatric assessment after taking overdoses (Davies 1998). The 50 were among 157 adolescents (81 of whom were admitted) who had presented to A&E in West Glamorgan with an overdose over the study period. The most frequent diagnoses among the 50 were adjustment disorder (38%), conduct disorder (28%) and depressive episode (20%); no psychiatric disorder was found in 4% (note that the study preceded the 2004 NICE guidelines on self-harm). By the Hawton classification, 12 (24%) were in group 1, 21 (42%) in group 2 and 17 (34%) in group 3. The study concluded that this is a clinically useful classification that can be used to guide discussion of treatment.

### Group 1: acute

An appointment with a healthcare professional provides an opportunity to describe current concerns. This may be experienced as validating and can be therapeutic in itself. Brief intervention consists of psychoeducation regarding risk and problem-solving for the young person and parents. A crisis plan will be identified, but there will be no ongoing involvement with CAMHS.

## BOX 3 Screening instruments for the identification of at-risk individuals

- Beck Hopelessness Scale (Beck 1974): hopelessness is a stable construct and correlates with depression
- Inventory of Suicidal Orientation–30 (King 1994): 30-item self-report questionnaire with five subscales: hopelessness, suicidal ideation, perceived inadequacy, inability to cope with emotions, and social isolation and withdrawal
- Life Attitudes Scale (Lewinsohn 1995): self-report measure examining life-enhancing and life-threatening behaviours
- PATHOS (Kingsbury 1996): five-item interview questionnaire designed to screen young people presenting to accident and emergency
- Reasons for Living (Linehan 1983): 48-item self-report which assesses belief systems that 'buffer' against suicidal behaviour

**Group 2: chronic**

In chronic self-harm, the behaviour is likely to be a symptom of an underlying problem and to resolve with treatment of that problem. For example, if depression is diagnosed, an evidence-based treatment such as a brief problem-focused intervention may be indicated (National Collaborating Centre for Mental Health 2005). If the young person is under 16, their parents/carers will also be involved in the treatment programme. Prognosis is good for adolescents who fall into this category.

**Group 3: chronic with behavioural disturbance**

This group has the poorest prognosis and is the most difficult to treat with conventional approaches. Risk of repetition is likely to be high. The severity of the self-harm and suicidal intent must be assessed. Young people who frequently self-harm but for whom this is clearly a coping method need continuous surveillance and support. Anxiety levels among parents, carers and professionals may be very high. If the individual has expressed suicidal intent, psychiatric admission may be indicated for assessment but this should be avoided if possible because of the risk of escalation.

The role of the child psychiatrist is to work in partnership with social, paediatric and educational services. A multi-agency meeting is essential as soon as possible to engage members of the care team across agencies and agree ways forwards. Care coordination is crucial. A proportion of these young people may require alternative accommodation or admission to a psychiatric unit. Interventions should be focused on underlying diagnosis. Drug and alcohol misuse may be problematic and contribute to ongoing risk. Some young people in this group may be showing features of an emerging borderline personality disorder.

**Issues for professionals**

Self-harming behaviours are not an illness. The behaviours may represent unmet need in young people and/or a method of dealing with emotional pain. Engagement in a dialogue with the young person is crucial in developing a shared understanding of their behaviour and the risks. Professionals should be calm, containing and non-judgemental. Young people may require medical attention and staff should be able to identify these needs and respond accordingly.

Young people presenting with severe self-harming behaviour associated with suicidal intent may evoke complex emotions in professionals/staff. The multidisciplinary team can be polarised in views about such patients. Staff need regular

clinical supervision to enable them to manage their emotions: when a young person feels that they cannot control their emotions, it is important that professionals can take charge of their own.

Managing self-harm in in-patient populations is particularly difficult for staff. Therapeutic risk-taking is advocated with adults. In principal, this involves a range of approaches in which services share responsibility for risk with service users, supporting them in taking responsibility for their actions. This can involve advice regarding self-management of injuries and provision of first aid as well as harm minimisation (sometimes known as 'safe cutting'). These interventions need to be delivered by appropriately trained and supervised staff. Most clients with longer-term histories of self-harm will have significant personality difficulties and research emphasises the importance of offering longer-term (at least 12 months) interventions (Alwyn 2006).

Such approaches are not considered appropriate for adolescents. Appreciation that self-harm is helpful to young people needs to be communicated with a clear message that it is dysfunctional and that alternative solutions can and must be found. Key to therapeutic work is a collaborative approach where young people are required to take increasing responsibility for their own behaviour and emotions, and learn methods of managing them. There may be situations where young people refuse emergency medical treatment or any psychological support. An assessment of capacity is required to decide whether compulsory treatment is indicated. Urgent medical treatment can be provided under common law. Occasionally, when risk is assessed to be very high in the presence of a mental illness, detention under sections 2 or 3 of the Mental Health Act 1983 is indicated.

**Evidence-based practice**

There is a paucity of research evidence available on the benefit of specific or non-specific interventions for adolescent self-harm (Box 4). The following is a summary of interventions for which there is any

**BOX 4 Interventions for self-harm in adolescents**

- In-patient treatment
- Medication
- Family intervention
- Dialectical behaviour therapy
- Developmental group psychotherapy
- Multisystemic therapy

evidence that focus on young people presenting with self-harm. These interventions are aimed at reducing risk and improving functioning.

A Cochrane review of pharmacological and psychosocial treatments for self-harm by Hawton et al (2000) provides a comprehensive summary of the available interventions, together with the evidence base. An update is expected in 2008/2009.

### *In-patient treatment*

In-patient psychiatric assessment is indicated for young people presenting with evidence of a mental illness and who are at high risk of suicide. For treatment to be beneficial, the individual needs to have a placement/home base that the in-patient team can work with, as admission should be goal-directed and discharge planned at the outset. Anecdotally, in-patient treatment can be problematic for young people with features of borderline personality disorder. Self-harming behaviour can worsen and discharge is often difficult.

A case-note audit of young people admitted to a Tier 4 service where self-harm was the principle reason for referral showed that admission is less negative than the staff perceive it to be. A total of 45 in-patient episodes (41% total admissions) were reviewed: 82% were female (mean age 14 years), 40% were admitted from paediatric wards, 86% had a diagnosis of depression, and 93% were living at home. Mean length of stay was 62 days. Seventy-five per cent did not engage in serious self-harm (requiring medical intervention) as in-patients and two-thirds were discharged home. Three young people needed to be transferred to a secure facility because the risk they posed to themselves could not be managed in an open unit (details available from the author on request).

In-patient stay should be as brief as possible and discharge carefully planned to ensure seamless support.

There are no studies evaluating intensive or residential therapeutic placements.

### **Medication**

Medication may have a role in the treatment of an underlying disorder in self-harm. A small placebo-controlled study reported a reduction in self-harming in patients receiving flupentixol (Montgomery 1979). However, a review of the use of medication in the management of self-harm (Hawton 2000) found no evidence for the benefit of antidepressants in the disorder. Medication is used in clinical practice for symptom relief, but the lack of evidence base for its efficacy in reducing self-harm itself should be noted.

### **Brief family intervention**

A brief home-based family intervention was devised and delivered as part of a randomised controlled trial (Harrington 1998). Following admission for self-poisoning, patients were allocated to routine care or to routine care plus the intervention. The intervention involved two therapists visiting the young person and their family at home on four occasions. Each session focused on an aspect of adolescence and self-harm. The intervention is manualised and a video is available. Results showed a low repeat rate and low rates of psychopathology, with no differences in any outcome between the two groups, although the intervention was well received.

### **Dialectical behaviour therapy**

Dialectical behaviour therapy (DBT) was developed to treat women with borderline personality disorder who were chronically parasuicidal. The approach is based on Linehan's biosocial theory, in which borderline personality disorder is caused by pervasive emotional dysregulation (Linehan 1993). Self-harm is considered to be a maladaptive solution to overwhelming intensely painful emotions.

Borderline personality disorder in young people can be diagnosed (for symptoms of at least 12 months' duration) using adult criteria but this is not recommended for children under 16 years of age. The NICE guidelines include a chapter on the treatment and management of the disorder in young people under 18 years of age (National Collaborating Centre for Mental Health 2009). The concept of 'emerging borderline personality disorder' has been suggested to describe children under 16 presenting with symptoms or showing vulnerability to the disorder.

Miller and colleagues (2007) have adapted DBT for adolescents at risk of suicide. Therapy comprises individual sessions, including 24-hour telephone access and group skills training. The emphasis is on balancing change and acceptance, and improving capabilities and coping. It is intensive and requires therapist and team supervision. The adolescent programme was designed to take place over 12 weeks.

Dialectical behaviour therapy is the only empirically supported treatment for adults with multiple mental health problems at risk of suicide. In a 2-year randomised controlled trial, DBT reduced suicidal behaviour, in-patient days and anger ratings compared with treatment as usual (Linehan 2006).

Rathus & Miller (2002) reported a quasi-experimental investigation of their adaptation of DBT for suicide risk with 29 adolescents with

features of borderline personality disorder compared with 82 adolescents receiving a combination of individual supportive psychotherapy and family therapy. The DBT group had fewer hospital admissions and a higher treatment adherence rate. Katz et al (2004) compared outcomes for adolescents on an in-patient unit adopting a DBT approach with those from an in-patient unit run on psychodynamic principles. Fewer self-harm incidents were reported for the DBT unit. Thus, DBT shows promise with this population.

### Developmental group psychotherapy

Developmental group psychotherapy was developed in the context of a district CAMHS as an intervention for young people presenting with repeated self-harm. It functions as an open long-term group therapy intervention that young people can access in crisis and can continue to attend until they are ready to 'move on'. The focus is on 'growing up despite multiple problems' and it attempts to reduce exclusion and social isolation, and combine and enhance other CAMHS treatments.

Colleagues and I evaluated the intervention as a randomised controlled trial within a district CAMHS in Manchester, UK, when 63 young people aged 12–18 years were randomised to receive the group therapy plus treatment as usual or treatment as usual alone. The risk of being a 'multiple repeater' (more than two further episodes of self-harm) was higher in the treatment-as-usual arm (32% v. 6%). Fewer episodes of self-harm and a longer time to first repetition were reported in the group therapy arm (Wood 2001). A multicentre study (Assessment and Treatment in Suicidal Teenagers, ASSIST) led by Professor Jonathan Green, in which I am joint lead clinician, set within a Tier 4 service, was designed to have the statistical power to detect clinically significant differences in outcomes, and is almost complete. A total of 366 young people have been recruited to the study, which has involved rolling out the intervention to CAMHS in the north-west of England. Results are not yet available but are anticipated in 2009. Developmental group psychotherapy shows promise, although a randomised controlled trial in Australia showed higher rates of self-harm in the treatment group (Hazell 2009).

The risk of 'contagion' of self-harm among young people is high and group interventions must be conducted by experienced practitioners with access to regular supervision.

### Multisystemic therapy

Multisystemic therapy was developed in the USA by Henggeler (1999) as an intensive home-based

treatment for delinquent youths presenting with repeated risk-taking behaviour. It comprises individual, parent, family and school interventions based around the young person. Multisystemic therapy is not an alternative to in-patient management, but it can significantly reduce hospital stays. Although it is not focused on self-harm *per se*, it shows promise for populations with multiple problems.

### Practice guidelines

It is frustrating for practising clinicians that there is so little understanding of which treatments work for this group of clients, who are regularly assessed by CAMHS. Most self-harming behaviour is not suicidal in nature and the risk of completed suicide is low. Risk assessment should be conducted to delineate suicidal intent.

A stepwise approach to care is helpful, based on the premise that there is no evidence firmly in favour of any specific treatment in the absence of mental illness (Box 5). Continuing assessment is important, as the young person's risk may escalate. Treatment itself can be harmful or it can maintain the problem.

### Outcomes

What happens to young people who present to services following self-harm? There are few UK follow-up studies available; however, outcomes which have been studied include suicide, repeated self-harm and personality disturbance in adult life. In the USA, Spirito et al (1989) showed that up to 11% of adolescents who self-harm will eventually take their own life. Hawton et al (2006b) identified via the Oxford Monitoring System for Attempted Suicide a cohort of over 11 000 patients aged 15 who self-harmed. Follow-up over a mean period of 11 years found a death rate of 10.2%. All

#### BOX 5 Stepwise approach to managing self-harm in CAMHS

- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1 Risk assessment: risk of suicide; presence of mental illness; psychosocial evaluation involving key family/carers</li> <li>2 Offer specific treatment/review if there is presence of a mental health disorder</li> <li>3 For young people who repeatedly self-harm and are assessed as low risk but to re-present, offer consultation by CAMHS, multi-agency problem-focused approach</li> <li>4 For young people assessed as being at high risk, involvement of CAMHS is appropriate: offer specific interventions</li> </ol> | <p>(e.g. group therapy, family therapy or cognitive-behavioural therapy); aim to manage in the community if possible; take a long-term view and involve Social Services if indicated; minimise the number of professionals involved; care coordination is essential</p> <ol style="list-style-type: none"> <li>6 If there is no response to focused out-patient intervention and the young person is assessed as high risk, consider specialist Tier 4 referral for residential assessment/very specialist interventions such as dialectical behaviour therapy</li> </ol> |
|---|---|

## MCQ answers

1	2	3	4	5
a f	a f	a f	a f	a f
b f	b t	b f	b f	b t
c t	c f	c t	c f	c f
d f	d f	d f	d f	d f
e f	e f	e f	e t	e f

causes of death (e.g. respiratory disease, neurological, circulatory and endocrine disorders) had increased. Suicide/probable suicide accounted for 2.6%. In a recently published follow-up study of 710 consecutive under-15-year-olds presenting to hospitals in Oxford over a 26-year period, Hawton & Harriss (2008) concluded that self-harm is most often triggered by life events but is generally of low suicidal intent. Follow-up occurred on average 11 years after first presentation and long-term risk of suicide was very low (1.1%). Repetition rates vary but are reported as between 6 and 30% depending on sample selection/size, length of follow-up and location (Hawton 1982; NHS Centre for Reviews and Dissemination 1998).

Harrington et al (2006) published their 6-year follow-up of adolescents participating in a randomised controlled trial of a brief family intervention (Harrington 1998). Patients were compared with matched controls identified via general practitioner surgeries. At 3-year follow-up 70% of the patients were no longer self-harming and less than 10% reported frequent self-harm; 50% had used adult mental health services, and among the adults who continued to self-harm, childhood adversity (e.g. sexual abuse) was prevalent.

Andrews & Lewinsohn (1992) and Sadowski & Kelly (1993) describe poor problem-solving, impaired peer relationships and repeated separations in later life for young people who had presented to services following self-harm in adolescence.

More research is needed to clarify the factors contributing to the increased risk of suicide, repetition of self-harm and personality disturbance in relation to self-harm.

### Future directions

Self-harming behaviour is common among adolescents and probably increasing. Young people who engage in self-harm come into contact with a large number of different professionals. The role of the psychiatrist is to identify and prescribe treatment for those young people presenting with mental health disorders and/or ongoing high risk to self. Part of the role of the psychiatrist or other mental health professional is to work in partnership with other agencies (using collaborative approaches) to ensure that the mental health, social care, physical health and educational needs of the young person within their family system are met.

This article has focused on risk assessment and on generic and specific treatments that a psychiatrist in CAMHS would be expected to have knowledge of. Further research is needed into long-term outcomes, in particular early identifiers of borderline personality disorders and investigation

into which treatments and interventions are most effective. For some young people, involvement of mental health services may be counterproductive and core parenting problems and unmet social and emotional needs may be obscured by intensive interventions. For the vast majority of young people who self-harm it is a transient adolescent experience. The challenge for professionals is to identify those who are at risk of death and for whom therapeutic intervention could be life-saving.

### References

- Alwyn N, Blackburn R, Davidson K, et al (2006) *Understanding Personality Disorder: A Report by the British Psychological Society*. BPS.
- Andrews J, Lewinsohn P (1992) Suicidal attempts among older adolescents: prevalence and co-occurrence with psychiatric disorders. *Journal of the American Academy of Child and Adolescent Psychiatry*; **31**: 655–62.
- Beck A, Schuyler D, Herman I (1974) Development of suicidal intent scales. In *The Prediction of Suicide* (eds A Beck, H Reisman, D Letteri). Charles Press.
- Brent D, Baugher M, Bridge J, et al (1999) Age and sex-related risk factors for adolescent suicide. *Journal of the American Academy of Child and Adolescent Psychiatry*; **38**: 1497–505.
- Bridge J, Goldstein T, Brent D (2006) Adolescent suicide and suicidal behaviour. *Journal of Child Psychology and Psychiatry*; **47**: 372–94.
- CAMHS Review Expert Group (2008) *Children and Young People in Mind: The Final Report of the National CAMHS Review*. Child and Adolescent Mental Health Services (<http://www.dcsf.gov.uk/CAMHSreview/downloads/CAMHSReview-Bookmark.pdf>).
- Davies G, Ames S (1998) Adolescents referred following overdose. Support for Hawton's classification and the role of a primary child and adolescent mental health worker. *Psychiatric Bulletin*; **22**: 359–61.
- Evans E, Hawton K, Rodham K (2005) In what ways are adolescents who engage in self-harm or experience thoughts of self-harm different in terms of help seeking, communication and coping strategies? *Journal of Adolescence*; **28**: 573–87.
- Fox C, Hawton K (2004) *Deliberate Self-Harm in Adolescence*. Jessica Kingsley.
- Harrington R, Kerfoot M, Dyer E, et al (1998) Randomised trial of a home-based family intervention for children who have deliberately poisoned themselves. *Journal of the American Academy of Child and Adolescent Psychiatry*; **37**: 512–8.
- Harrington R, Pickles A, Aglan A, et al (2006) Early adult outcomes of adolescents who deliberately poisoned themselves. *Journal of the American Academy of Child and Adolescent Psychiatry*; **45**: 337–45.
- Hawton K, Osborne M, O'Grady J, et al (1982) Classification of adolescents who take overdoses. *British Journal of Psychiatry*; **140**: 124–31.
- Hawton K, Fagg J, Imkin S (1996) Deliberate self-poisoning and self-injury in adolescents under 16 years of age in Oxford, 1976–1993. *British Journal of Psychiatry*; **169**: 202–8.
- Hawton K, Townsend E, Arensman E, et al (2000) Psychosocial and pharmacological treatments for deliberate self-harm. *Cochrane Database of Systematic Reviews*; issue 2: CD001764.
- Hawton K, Hall S, Simkin S, et al (2003) Deliberate self-harm in adolescents: a study of characteristics and trends in Oxford, 1990–2000. *Journal of Child Psychology and Psychiatry and Allied Disciplines*; **44**: 1191–8.
- Hawton K, Rodham K (2006a) *By Their Own Young Hand. Deliberate Self-Harm and Suicidal Ideas in Adolescents*. Jessica Kingsley.
- Hawton K, Harriss L, Zahl D (2006b) Deaths from all causes in a long-term follow-up study of 11,583 deliberate self-harm patients. *Psychological Medicine*; **36**: 397–405.

- Hawton K, Harriss L (2008) Deliberate self-harm by under-15-years-olds: characteristics, trends and outcome. *Journal of Child Psychology and Psychiatry*; **49**: 441–8.
- Hazell PL, Martin G, McGill K, et al (2009) Group therapy for repeated deliberate self-harm in adolescents: failure of a replication of a randomized trial. *Journal of the American Academy of Child and Adolescent Psychiatry*; **48**: 662–70.
- Henggeler S (1999) Multisystemic therapy: an overview of clinical procedures, outcomes, and policy implications. *Child Psychology and Psychiatry Review*; **4**: 2–10.
- Katz L, Cox B, Gunasekara S, et al (2004) Feasibility of dialectical behaviour therapy for suicidal adolescent in-patients. *Journal of the American Academy of Child and Adolescent Psychiatry*; **43**: 276–82.
- King K, Kowalchuk B (1994) *Manual for ISO–30 Adolescent: Inventory of Suicide Orientation–30*. National Computer Systems.
- Kingsbury S (1996) PATHOS: a screening instrument for adolescent overdose: a research note. *Journal of Child Psychology and Psychiatry*; **37**: 609–11.
- Lewinsohn P, Langhinrichsen-Rohling J, Langford R, et al (1995) The life attitudes scale: a scale to assess adolescent life-enhancing and life-threatening behaviors. *Suicide and Life-Threatening Behavior*; **25**: 458–74.
- Linehan M, Goodstein J, Nielson S, et al (1983) Reasons for staying alive when you are thinking of killing yourself: the reasons for living inventory. *Journal of Consulting and Clinical Psychology*; **51**: 276–86.
- Linehan M (1993) *Cognitive Behavioural Therapy for Borderline Personality Disorder*. Guilford Press.
- Linehan MM, Comtois KA, Murray AM, et al (2006) Two-year randomized trial and follow-up of dialectical behavior therapy vs therapy by experts for suicidal behaviors and borderline personality disorder. *Archives of General Psychiatry*; **63**: 757–66.
- Madge, N, Hewitt A, Hawton K, et al (2008) Deliberate self-harm within an international community sample of young people: comparative findings from the Child & Adolescent Adolescent Self-harm in Europe (CASE) Study. *Journal of Child Psychology and Psychiatry*; **49**: 667–77.
- Meltzer H, Harrington R, Goodman R, et al (2001) *Children and Adolescents Who Try to Harm, Hurt or Kill Themselves*. Office for National Statistics.
- Mental Health Foundation (2006) *Truth Hurts. Report of the National Inquiry into Self-harm Among Young People*. Mental Health Foundation.
- Miller AL, Rathus JH, Linehan MM (2007) *Dialectical Behavioural Therapy with Suicidal Adolescents*. Guilford Press.
- Montgomery SA, Montgomery DB, Jayanthi-Rani S, et al (1979) Maintenance therapy in repeat suicidal behaviour: a placebo controlled trial. In *Proceedings of the Tenth International Congress for Suicide Prevention and Crisis Intervention*: 227–9. International Association for Suicide Prevention.
- NHS Centre for Reviews and Dissemination (1998) Deliberate self harm. *Effective Health Care*; **4**: December.
- National Collaborating Centre for Mental Health (2004) *Self-Harm: The Short-Term Physical and Psychological Management and Secondary Prevention of Self-Harm in Primary and Secondary Care*. National Institute for Health and Clinical Excellence.
- National Collaborating Centre for Mental Health (2005) *Depression in Children and Young People: Identification and Management in Primary, Community and Secondary Care. Clinical Guideline 28*. National Institute for Health and Clinical Excellence.
- National Collaborating Centre for Mental Health (2009) *Borderline Personality Disorder (BPD): Treatment and Management. NICE Clinical Guideline 78*. NICE.
- Rathus J, Miller A (2002) Dialectical behavior therapy adapted for suicidal adolescents. *Suicide and Life-Threatening Behavior*; **32**: 146–57.
- Roberts RE, Chen YR, Roberts CR (1997) Ethnocultural differences in prevalence of adolescent suicidal behaviors. *Suicide and Life-Threatening Behavior*; **27**: 208–17.
- Royal College of Paediatrics and Child Health (2003) *Bridging the Gaps: Health Care for Adolescents*. Royal College of Paediatrics and Child Health.
- Royal College of Psychiatrists (2006) *Better Services for People who Self Harm: Quality Standards for Health Care Professionals*. Royal College of Psychiatrists.
- Sadowski C, Kelly M (1993) Social problem-solving in suicidal adolescents. *Journal of Consulting and Clinical Psychology*; **61**: 121–7.
- Shaffer D, Gould M, Fisher P, et al (1996) Psychiatric diagnosis in child and adolescent suicide. *Archives of General Psychiatry*; **53**: 339–48.
- Spirito A, Brown L, Overholser J, et al (1989) Attempted suicide in adolescence: a review and critique of the literature. *Clinical Psychology Review*; **9**: 335–63.
- Sutton A (1998) Psychodynamics of self-directed destructive behaviour in adolescence. *Advances in Psychiatric Treatment*; **4**: 31–8.
- Wood A, Trainor G, Rothwell J, et al (2001) Randomized trial of group therapy for repeated self-harm in adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry*; **40**: 1246–53.

## MCQs

### 1 Self-harming behaviour in adolescents:

- a should always result in hospital admission
- b is described by around 40% of adolescents in community surveys
- c is more common in girls
- d is high in The Netherlands according to a seven-country comparison study
- e is common under 12 years of age.

### 2 Suicidal thoughts in adolescents:

- a are described by less than 10% of adolescents in community surveys
- b should always be enquired about in a one-to-one interview with the young person as part of a risk assessment
- c can be assessed by psychological autopsy
- d can be assessed by interviewing parents/carers
- e lead to completed suicide in 10% of cases.

### 3 Initial management of young people brought to accident and emergency following acts of self-harm involves:

- a referral to CAMHS in all cases
- b discharge home if medically fit to avoid admission
- c stabilisation of physical condition, history-taking and admission for medical assessment/treatment if evidence of overdose
- d administering the Beck Hopelessness Scale to assess ongoing risk
- e avoid discussion of suicidal thoughts as this will increase risk.

### 4 The use of medication in adolescents who self-harm:

- a is of proven benefit
- b is always indicated in the presence of a diagnosable mental illness

- c selective serotonin reuptake inhibitors reduce self-harming behaviour
- d flupentixol is recommended for repeated self-harming behaviour
- e may have a place as part of a multi-modal management programme.

### 5 Interventions focused on self-harming behaviour in adolescents for which there is an evidence base include:

- a family therapy
- b DBT
- c psychodynamic psychotherapy
- d interpersonal therapy
- e multisystems therapy.